

CHAPTER 1 SECTION 22.2

SENSORY EVOKED POTENTIALS (SEP)

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I. PROCEDURE CODE

92585, 95925 - 95930

II. DESCRIPTION

Sensory evoked potentials (SEP) are electrical waves that are generated by the response of sensory neurons to stimuli. Changes in the electrical waves are averaged by a computer and then interpreted by a physician. Computer-averaged SEPs can be used to assist the diagnosis of certain neuropathologic states or to provide information for treatment management. Intraoperative monitoring of sensory evoked potentials is used during orthopedic or neurologic surgical procedures to reduce surgically induced morbidity and/or to monitor the level of anesthesia.

III. POLICY

Visual, auditory, and somatosensory evoked potential recordings are considered eligible for coverage for the following indications:

A. Visual evoked potentials.

1. To diagnose and monitor the acute and chronic phase of multiple sclerosis; and
2. To localize visual field defects occurring in the absence of structural lesions, acquired metabolic disease or infectious disease.

B. Auditory evoked potentials.

1. To evaluate brainstem function and metabolic disorders;
2. To identify the presence of brainstem tumor when MRI or CT is ineffective or unavailable;
3. To diagnose and monitor demyelinating or degenerative brainstem diseases, such as multiple sclerosis, central pontine myelinolysis and olivopontocerebellar degeneration;

4. To diagnose the presence of lesions in the external auditory system, such as acoustic neuromas;
5. To assess recovery of brainstem function after removal of space occupying lesions compressing the brainstem;
6. To supplement the EEG in evaluating brain death or irreversibility of coma; and
7. To measure the type and extent of hearing impairment or determine the degree of neural maturation in neonates, infants, and children less than five years of age.

C. Somatosensory evoked potentials.

1. To assess somatosensory function in unconscious patients who have sustained traumatic damage to the spinal cord which is demonstrated by radiologic examination and who are candidates for emergency surgery of the spinal column; and
2. To diagnose and manage suspected space occupying lesion or demyelinating and degenerative diseases in the somatosensory system not identified by radiologic examination.
3. To diagnose cervical, spinal, and cerebral insults and to continuously monitor (intraoperative) high-risk neurologic and orthopedic surgical procedures to identify potential problems and prevent complications.

IV. EXCLUSION

Intraoperative monitoring of sensory evoked potentials (SEP) to define conceptional or gestational age in pre-term infants.

V. EFFECTIVE DATE May 18, 1993.

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